

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method for processing a job, comprising;
generating a signal when status for the job is changed from a first status to a second status, wherein each status for the job is associated with a single work process for processing the job among multiple work processes, and wherein each status describes processing refers to a next process to be performed on the job by the single work process associated with the status, and wherein each work process is an application program;
identifying a work process for processing the job based on the second status;
notifying the work process associated with the second status that one job had its status changed to the second status in response to the signal;
processing, with the work process, the job that had its status changed from the first status to the second status; and
modifying, with the work process, the status of the job after completing the processing of the job.
2. (Original) The method of claim 1, wherein the signal is transmitted to a routing process and indicates the second status, further comprising:
processing with the routing process a mapping associating each status with one work process in response to receiving the signal; and
determining from the mapping one work process associated with the second status, wherein the determined work process is notified of the job.

3. (Original) The method of claim 1, wherein job status is maintained in a database table including information on the job, further comprising maintaining, with the work process, a connection with the database that enables communication with the database table, wherein modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein updating the status with the output status generates the signal indicating a change in status.

4. (Original) The method of claim 3, wherein the signal is generated by an event trigger in the database that responds to an update to the status of the job in the database table.

5. (Previously presented) The method of claim 3, wherein there are multiple work processes each associated with one input status and at least one output status, wherein each work process is enabled to update the job status with one associated output status after completing the processing of the job, wherein the output status for one work process is the input status associated with one other work process, and wherein the definition of input and output statuses for work processes, defines the workflow of the job.

6. (Original) The method of claim 3, further comprising the work process performing:

determining whether the work process completed processing the job successfully; and updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully.

7. (Previously Presented) A method for processing a job, comprising:

generating a signal when status for the job is changed from a first status to a second status, wherein the job may be processed by one or more work processes;

notifying a work process associated with the second status that one job had its status changed to the second status in response to the signal;

processing, with the work process, the job that had its status changed from the first status to the second status;

modifying, with the work process, the status of the job after completing the processing of the job;

wherein job status is maintained in a database table including information on the job and maintaining, with the work process, a connection with the database that enables communication with the database table, wherein modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein updating the status with the output status generates the signal indicating a change in status;

wherein the work process further comprises performing:

determining whether the work process completed processing the job successfully; and

updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully; and

wherein an error work process is associated with the error status, wherein updating the job to the error status causes the notification of the error work process, and wherein the error work process further comprises performing:

performing error recovery operations on the job;

determining whether the error recovery operations corrected the job; and

setting the jobs status of the corrected job to a first possible status in the workflow.

8. (Previously Presented) The method of claim 3, wherein the work process further performs:

querying the database table for jobs having the status associated with the work process;
processing the jobs having the status associated with the work process;
terminating processing of the database table if there are no further jobs in the database table having the status associated with the work process; and
querying the database table for additional jobs after receiving the notification.

9. (Original) The method of claim 8, wherein the work process spawns a work thread to process one job in the database table having the status associated with the work process, wherein the work process is capable of spawning multiple work threads to process different jobs having the status associated with the work process.

10. (Original) The method of claim 1, wherein the job comprises a data file, wherein at least one work process processes the data file to alter its format and at least one other work process processes the data file in the altered format to transmit the work process to an output device.

11. (Previously Presented) The method of claim 10, wherein at least two work processes process the job at different devices in communication over a network, further comprising accessing the job from another device over the network to process the job at the device on which that work process executes.

12. (Original) The method of claim 1, further comprising:
adding a status update to a list providing status updates for each job; and
using the list to determine how the job has been processed by the work processes.

13. (Currently Amended) A system for processing a job, comprising;
means for generating a signal when status for the job is changed from a first status to a second status, wherein each status for the job is associated with a single work process for processing the job among multiple work processes, and wherein each status describes processing refers to a next process to be performed on the job by the single work process associated with the status, and wherein each work process is an application program;

means for identifying a work process for processing the job based on the second status;

means for notifying the work process associated with the second status that one job had its status changed to the second status in response to the signal;

means for processing, with the work process, the job that had its status changed from the first status to the second status; and

means for modifying, with the work process, the status of the job after completing the processing of the job.

14. (Original) The system of claim 13, wherein the signal is transmitted to a routing process and indicates the second status, further comprising:

means for processing with the routing process a mapping associating each status with one work process in response to receiving the signal; and

mean for determining from the mapping one work process associated with the second status, wherein the determined work process is notified of the job.

15. (Original) The system of claim 13, wherein job status is maintained in a database table including information on the job, further comprising means for maintaining, with the work process, a connection with the database that enables communication with the database table, wherein the means for modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and

wherein the means for updating the status with the output status generates the signal indicating a change in status.

16. (Original) The system of claim 15, wherein the signal is generated by an event trigger in the database that responds to an update to the status of the job in the database table.

17. (Previously Presented) The system of claim 15, wherein there are multiple work processes each associated with one input status and at least one output status, wherein each work process is enabled to update the job status with one associated output status after completing the processing of the job, wherein the output status for one work process is the input status associated with one other work process, and wherein the definition of input and output statuses for work processes defines the workflow of the job.

18. (Original) The system of claim 15, further comprising:
means for determining whether the work process completed processing the job successfully; and
means for updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully.

19. (Previously Presented) A system for processing a job, comprising;
means for generating a signal when status for the job is changed from a first status to a second status, wherein the job may be processed by one or more work processes;
means for notifying a work process associated with the second status that one job had its status changed to the second status in response to the signal;

means for processing, with the work process, the job that had its status changed from the first status to the second status;

means for modifying, with the work process, the status of the job after completing the processing of the job;

wherein job status is maintained in a database table including information on the job, further comprising means for maintaining, with the work process, a connection with the database that enables communication with the database table, wherein the means for modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein the means for updating the status with the output status generates the signal indicating a change in status;

means for determining whether the work process completed processing the job successfully;

means for updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully; and

wherein an error process is associated with the error status, wherein updating the job to the error status causes the notification of the error work process, further comprising:

means for performing error recovery operations on the job;

means for determining whether the error recovery operations corrected the job; and

means for setting the jobs status of the corrected job to a first possible status in the workflow.

20. (Previously Presented) The system of claim 15, further comprising:

means for querying the database table for jobs having the status associated with the work process;

means for processing the jobs having the status associated with the work process;

means for terminating processing of the database table if there are no further jobs in the database table having the status associated with the work process; and

means for querying the database table for additional jobs after receiving the notification.

21. (Previously Presented) The system of claim 20, wherein the work process spawns a work thread to process one job in the database table having the status associated with the work process, and wherein the work process is capable of spawning multiple work threads to process different jobs having the status associated with the work process.

22. (Original) The system of claim 13, wherein the job comprises a data file, wherein at least one work process processes the data file to alter its format and at least one other work process processes the data file in the altered format to transmit the work process to an output device.

23. (Previously Presented) The system of claim 22, wherein at least two work processes process the job at different devices in communication over a network, further comprising means for accessing the job from another device over the network to process the job at the device on which that work process executes.

24. (Original) The system of claim 13, further comprising:
means for adding a status update to a list providing status updates for each job; and
means for using the list to determine how the job has been processed by the work processes.

25. (Currently Amended) An article of manufacture for processing a job, the article of manufacture comprising computer usable media including at least one computer program and at least one work process embedded therein that causes at least one computer to perform:

generating a signal when status for the job is changed from a first status to a second status, wherein each status for the job is associated with a single work process for processing the job among multiple work processes, and wherein each status describes processing refers to a next process to be performed on the job by the single work process associated with the status, and wherein each work process is an application program;

identifying a work process for processing the job based on the second status;

notifying the work process associated with the second status that one job had its status changed to the second status in response to the signal;

processing, with the work process, the job that had its status changed from the first status to the second status; and

modifying, with the work process, the status of the job after completing the processing of the job.

26. (Previously presented) The article of manufacture of claim 25, wherein the signal is transmitted to a routing process and indicates the second status, further comprising:

processing with the routing process a mapping associating each status with one work process in response to receiving the signal; and

determining from the mapping one work process associated with the second status, wherein the determined work process is notified of the job.

27. (Previously presented) The article of manufacture of claim 25, wherein job status is maintained in a database table including information on the job, further comprising maintaining, with the work process, a connection with the database that enables communication with the database table, wherein modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein updating the status with the output status generates the signal indicating a change in status.

28. (Previously presented) The article of manufacture of claim 27, wherein the signal is generated by an event trigger in the database that responds to an update to the status of the job in the database table.

29. (Previously presented) The article of manufacture of claim 27, wherein there are multiple work processes each associated with one input status and at least one output status, wherein each work process is enabled to update the job status with one associated output status after completing the processing of the job, wherein the output status for one work process is the input status associated with one other work process, and wherein the definition of input and output statuses for work processes defines the workflow of the job.

30. (Previously presented) The article of manufacture of claim 27, further comprising the work process performing:

determining whether the work process completed processing the job successfully; and updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully.

31. (Previously Presented) An article of manufacture for processing a job, the article of manufacture comprising computer usable media including at least one computer program and at least one work process embedded therein that causes at least one computer to perform:

generating a signal when status for the job is changed from a first status to a second status, wherein the job may be processed by one or more work processes;

notifying a work process associated with the second status that one job had its status changed to the second status in response to the signal;

processing, with the work process, the job that had its status changed from the first status to the second status;

modifying, with the work process, the status of the job after completing the processing of the job;

wherein job status is maintained in a database table including information on the job, further comprising maintaining, with the work process, a connection with the database that enables communication with the database table, wherein modifying the status of the job after completing processing comprises updating the status of the job to an output status associated with another work process, and wherein updating the status with the output status generates the signal indicating a change in status;

wherein the work process further comprises performing:

determining whether the work process completed processing the job successfully; and

updating the status of the job to an error status if the work process did not complete processing the job successfully, wherein the status of the job is updated with one output status associated with the work process if the job work process completed processing the job successfully; and

wherein one work process is an error work process is associated with the error status, wherein updating the job to the error status causes the notification of the error work process, wherein the error work process further comprises performing:

performing error recovery operations on the job;

determining whether the error recovery operations corrected the job; and

setting the jobs status of the corrected job to a first possible status in the workflow.

32. (Previously Presented) The article of manufacture of claim 27, wherein the work process further performs:

querying the database table for jobs having the status associated with the work process;

processing the jobs having the status associated with the work process;
terminating processing of the database table if there are no further jobs in the database
table having the status associated with the work process; and
querying the database table for additional jobs after receiving the notification.

33. (Previously presented) The article of manufacture of claim 32, wherein the work
process spawns a work thread to process one job in the database table having the status
associated with the work process, wherein the work process is capable of spawning multiple
work threads to process different jobs having the status associated with the work process.

34. (Previously presented) The article of manufacture of claim 25, wherein the job
comprises a data file, wherein at least one work process processes the data file to alter its format
and at least one other work process processes the data file in the altered format to transmit the
work process to an output device.

35. (Previously presented) The article of manufacture of claim 34, wherein at least
two work processes process the job at different devices in communication over a network, further
comprising accessing the job from another device over the network to process the job at the
device on which that work processes executes.

36. (Previously presented) The article of manufacture of claim 25, further comprising:
adding a status update to a list providing status updates for each job; and
using the list to determine how the job has been processed by the work processes.